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ANTLER-POINTED ARROWS OF THE SOUTH-EASTERN INDIANS

By CHARLES C. WILLOUGHBY

In 1899 the Peabody Museum of Harvard University received as a gift from the proprietors of the Boston Museum Theater the valuable archeological and ethnological material which for many years had been preserved in the exhibition cases of the museum formerly connected with that institution. Many of these objects had previously belonged to the Charles Wilson Peale Museum (established in Philadelphia in 1785) and were collected in the eighteenth and the first part of the nineteenth century.

This material included several incomplete sets of arrows, probably obtained at an early date from some of the south-eastern tribes. Examples of these are illustrated in plate x. *a* represents one of three arrows from a set; it is $30\frac{1}{4}$ inches long; the shaft of split hickory is without grooves, is about five-sixteenths of an inch in diameter at the center, and tapers gradually toward either end. The point is of antler, lozenge-shaped in cross-section, carefully finished, and painted red, the end of the shaft being inserted in a hole in its base. The feathering consists of three split feathers of the wild turkey trimmed to abrupt points at their lower ends. The two feathers bearing white blotches are wing quills, and the one with reddish-brown marking is from the tail. The feathers are seized at either end with sinew. The colored markings on the shaftment (the riband) are in red and black.

Plate x, *b*, in every way but the point, is a duplicate of *a*, and evidently belonged to the same quiver. The point is round in cross-section, is made from the tip of an antler prong, and has

also been painted red. The base of the point is cut to form two barbs.

Plate X, *c*, belongs to a different set from the ones described. The shaft is made from a shoot of a shrub or small tree, and is feathered with three split feathers of the wild turkey, their lower ends trimmed to a tapering point. The riband is in black and red. The double-barbed point is of antler and is not painted.

Plate X, *d*, shows the best preserved of four arrows from a third set. The shaft, like that of the preceding one, is made from a shoot of a shrub with opposite leaves, probably the cornus. The feathers are of the wild turkey, split and trimmed to three-eighths of an inch in width to within one-eighth of an inch of the lower extremities. The remainder of the web is left uncut and forms a tail or trailer at the end of each feather. The riband is in red and black, and the unpainted antler point is furnished with two barbs. The principal differences to be noted between this arrow and the one last described are the riband and the trimming of the lower extremities of the feathers.

Unfortunately there is no record accompanying these arrows. We may assume, however, with a reasonable degree of certainty, that they were obtained from southern Algonquian tribes or from one of the neighboring stocks.

The hickory tree from which the shafts of plate X, *a* and *b*, are made, is found in that portion of Canada bordering Lake Erie, Lake Ontario, and St Lawrence river, in New England and the middle states, the northern and western portions of the southern states, and westward to central Kansas and Nebraska. This tree extended into the Siouan region and was used to a certain extent for bows by the Sioux and neighboring tribes.

In studying the arrows of historic primitive peoples of different parts of the world, we find that, excepting among the Indians of central and western North America and in a few other restricted localities, flint points seem to have been the exception. This may be explained in some sections by the absence of situa-

ble stone for making arrowpoints. It should be remembered, however, that only a portion of the so-called flint arrowpoints found throughout America were ever attached to arrowshafts. The majority are probably rejects; many of them were knife blades attached to short handles, others were points to projectiles thrown with the hand or by the aid of some form of spear-thrower.

There is little evidence of the use of stone arrowpoints in New England within historic times. Gosnold in 1602 found the natives supplied with "copper" points, "some very red, some of a paler color" (brass?); Waymouth three years later saw arrows headed with points made from the long shank-bone of the deer; Champlain at about the same date found them tipped with the tail of the horseshoe crab; Mourt's *Relation* refers to arrowheads of brass, eagle claws, and hartshorn; Higgeson, writing in 1629, speaks of bone and brass arrowtips; Wood also mentions brass points, and writes of the feathering of the arrows with the wing and tail feathers of the eagle.

The Indians in several places in Massachusetts and southern Maine showed Champlain turkey-feathers "with which they feathered their arrows." The excellency of New England arrows is shown by the fact of their use as an article of trade with the tribes of the St Lawrence region, where Champlain found stone arrowpoints in use. None of the above writers refers to stone-pointed arrows within New England; they seem to have fallen into disuse at an early period. There are brief references to stone-pointed arrows in the regions adjoining the northern, western, and southwestern portions of New England. Holm mentions arrowpoints of stone, bone, horn, and the teeth of large fishes or animals among the Delawares; and Kalm refers to points made from stone, from the bones of animals, and from the claws of birds and beasts among the Indians of the same region. Smith mentions stone arrowpoints among the Virginia Indians. Beverly in his *History of the Present State of Virginia* (1705)

refers to arrows of reeds or small wands fledged with turkey-feathers and headed with stone or the spurs of the wild turkey-cock. Adair, writing of the Cherokee, describes arrows pointed with "scooped" points of buckhorn, turkey-cock's spurs, and stone. Timberlake mentions points of brass, copper, bone, and the scales of a certain fish; he writes that some of the points were of triangular form, and were inserted in the split end of the shaft, which was usually made of a reed. The point was secured by wrapping the end of the shaft with sinew, and passing the cord through a perforation in the metal point (compare fig. 56). In the province of Cofachiqui, De Soto employed an Indian guide whose quiver contained arrows with reed shafts, some of them tipped with buckhorn wrought "with four corners like a diamond" (compare plate X, *a*), some with bones of fishes curiously fashioned, others with hardwood or with flint.

While stone-pointed arrows were doubtless used to a greater or less extent by all the tribes of the United States, some other material seems generally to have been preferred in certain sections, notably the east.

Besides the stone-pointed arrow the early Siouan tribes used arrows pointed with splinters of the leg-bone of the buffalo or elk ground thin and smooth. An old example of this type in the Peabody Museum has the shaft grooves and proportionally long shaftment characteristic of the Siouan arrows. The thin bone point is of the same general form as the iron points adopted later which were obtained principally from white traders.

There is ample archeological evidence that antler-tipped arrows of the type illustrated in *b*, *c*, and *d*, plate X, were used from Maine to Arkansas. The Peabody Museum in Cambridge and the American Museum of Natural History in New York have collections of these points in all stages of formation. They are all from the Algonquian area or the region immediately bordering it. The unfinished point shown in fig. 54, *a*, is from the shell-heaps of Maine. There are two other specimens from the same locality in the Peabody Museum collection.

Fig. 54, *d* and *e*, were taken with several others from a grave on Staten island by Mr George H. Pepper of the American Museum. Some of the points were found embedded in the bones of the skeleton.

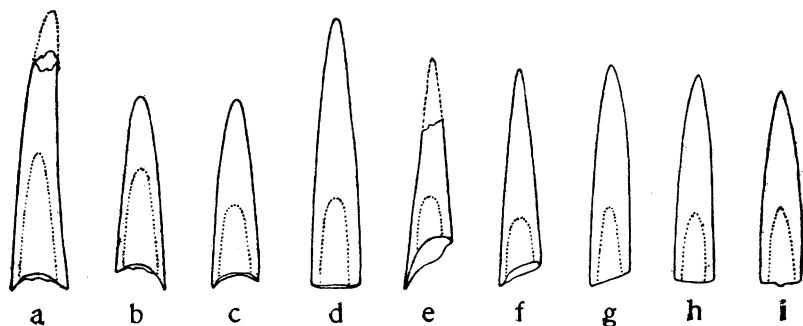


FIG. 54.—Antler arrowpoints (one-half nat. size), *a*, Maine; *b*, *c*, Ohio; *d*, *e*, New York; *f*, Kentucky; *g*, *h*, *i*, Arkansas. *a*, *b*, *c*, *g*, *h*, *i*, Peabody Museum; *d*, *e*, *f*, American Museum of Natural History.

Fig. 54, *b* and *c*, are from the ash-pits of the village site and cemetery at Madisonville, Ohio. They were obtained by the score in all stages of manufacture, from the antler branch with the shallow, encircling groove marking the first step in the process of manufacture to the finished and carefully polished point.

Fig. 54, *f*, is from the village site and burial place near May's Lick, Kentucky, and was obtained with many others by Mr Harlan I. Smith who conducted the exploration for the American Museum. Specimens *g*, *h*, and *i* are from the mounds and village sites in Poinsett and Cass counties, Arkansas. A few of the points shown in outline are finished or nearly so. The others in the same figure are evidently rejects, discarded on account of some imperfection.

In the manufacture of these points the antler prong was encircled by a groove cut to the required depth at a proper distance from the point (fig. 55, *a*); the point was then broken off, drilled, and afterward cut and scraped to the required form, then ground and polished (fig. 55, *b-e*). The base of the point was cut either straight across or in such manner as to form one or two barbs.

Accompanying the antler-pointed arrows illustrated in plate x and doubtless obtained from the same general region, were eleven from a fourth set having triangular copper points smaller but of

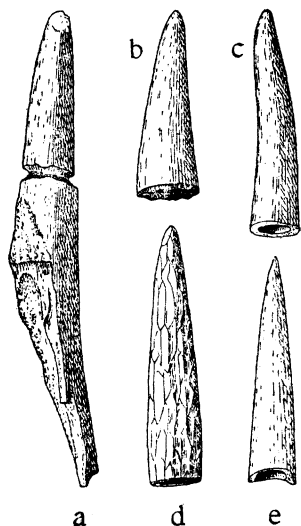


FIG. 55—Antler arrowpoints, illustrating process of manufacture. From village site and cemetery, Madisonville, Ohio. (Peabody Museum; one-half natural size.)

the same type as those of copper and brass occasionally found in the graves and village sites in New England. The copper point is perforated near the center, and is inserted for about half its length in a slot cut in the end of the arrowshaft to which it is bound by sinew, the cord passing through the perforation in the metal point (fig. 56), a method followed by the southern Indians and also by the Indians of New England.¹

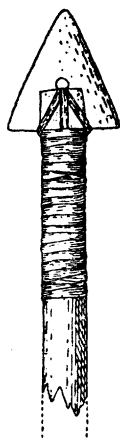
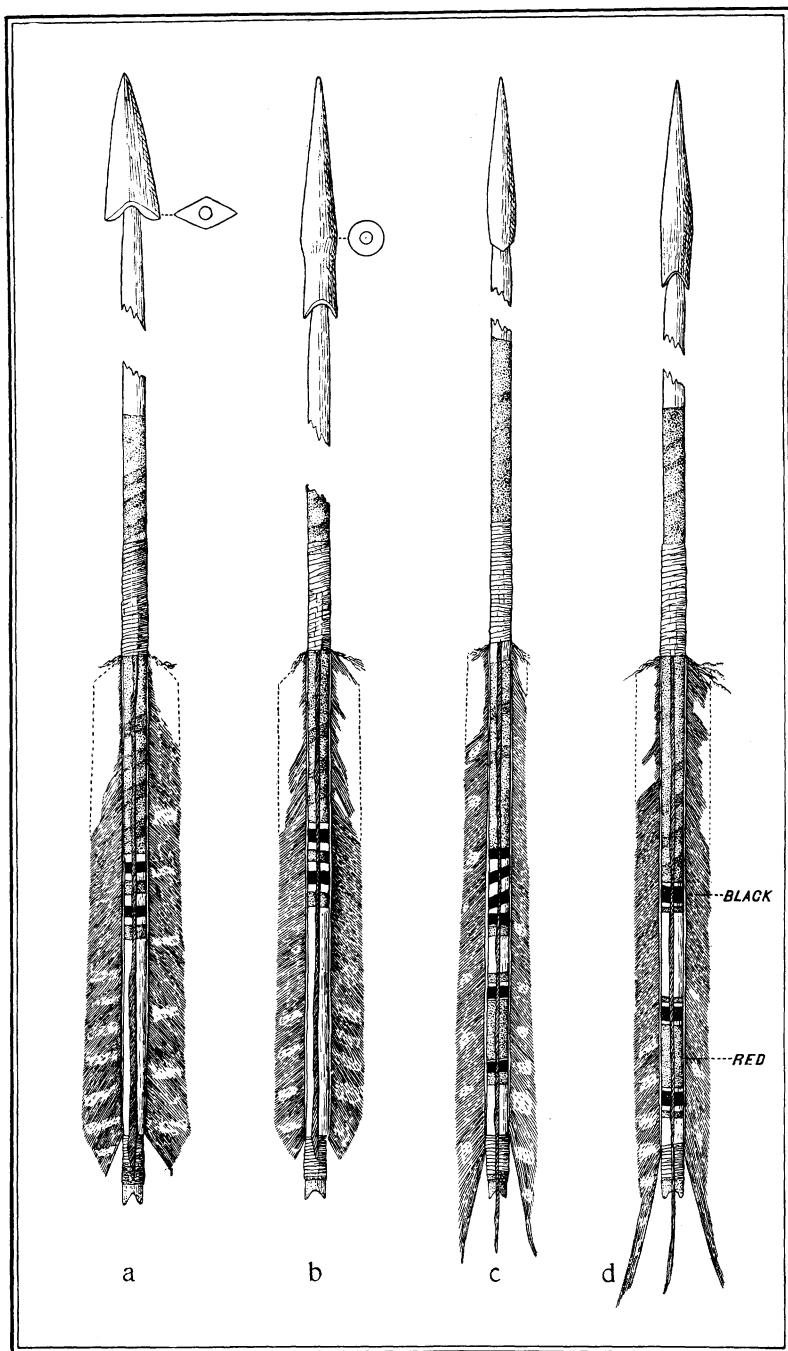


FIG. 56—Copper-pointed arrow of the southeastern Indians (full size).

The well-made shaft of split hickory is without grooves. The nock is expanding and the notch is deeply cut. The feathering consists of three differently colored split feathers of the wild turkey trimmed to a uniform width of a little more than three-eighths of an inch. These are seized at either end with sinew, the white-spotted feather taken from the turkey's wing being stained yellow. The riband

¹ The perforated, triangular brass arrowpoints found with the famous "Skeleton in Armor" Indian at Fall River in 1831 were attached to the shafts by a cord wrapped around the end of the shaft and passed through the perforation in the point. The upper portion of the shafts and the cord wrapping were preserved by contact with the metal. The "armor" and other metallic contents of this grave are fully described and illustrated in *Mémoires de la Société des Antiquaires du Nord*, 1840-1844, pp. 104-110 and pl. v. They are preserved in the Ethnographiske Museum at Copenhagen (with the exception of two of the brass tubes which are in the Peabody Museum at Cambridge), only the skeleton having been destroyed by fire at Fall River.



ANTLER-POINTED ARROWS OF THE SOUTHEASTERN INDIANS (TWO-FIFTHS NATURAL SIZE)

consists of two narrow encircling bands of red placed almost together near the center of the shaftment, and two additional bands of red at either end of the sinew wrapping which holds the feathers farthest from the nock. The sinew wrapping below the copper point is also painted red.

In studying the arrows of the tribes inhabiting the region east of the Mississippi it should be remembered that the full-sized bow of the Iroquoian tribes and the Atlantic coast Algonquians measured approximately five and one-half to six feet, with arrows of proportional length. The hickory self bow taken from an Indian at Sudbury, Massachusetts, in 1664, and now in the Peabody Museum, measures five feet six inches. The unique Abnaki compound bow belonging to Big Thunder, a Penobscot Indian, measures about five feet seven inches in length. The various accounts by early writers and the drawings by John White (1585) and other early artists, of the southern coast tribes, show that the shorter bow of the Algonquians of the interior and other tribes of the west was not commonly used by the coast Indians. Judging by the length of the antler- and copper-pointed arrows herein illustrated, they were used with bows of medium length and probably belonged to interior southeastern tribes.